



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/581,731

06/06/2006

Bryon P. Day

18169.2

4939

23556 7590 02/18/2010
KIMBERLY-CLARK WORLDWIDE, INC.
Tara Pohlkotte
401 NORTH LAKE STREET
NEENAH, WI 54956

EXAMINER

TOLIN, MICHAEL A

ART UNIT

PAPER NUMBER

1791

MAIL DATE

DELIVERY MODE

02/18/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/581,731	Applicant(s) DAY ET AL.	
	Examiner MICHAEL A. TOLIN	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11-12-2009</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cree (US 2003/0022582) in view of Yamamoto (JP 03-030934), Patchell (US 3441638) and Hovis (US 4842794).

Cree teaches a method of producing a laminate material comprising the steps of bonding a perforated thermoplastic film to a nonwoven material to create a netting a nonwoven material laminate, the perforated film satisfying the claimed netting material (Abstract; paragraphs 24, 31, 33 and 39). Cree is not particularly limited to a specific manner of forming a perforated film. Yamamoto forms a perforated thermoplastic film by extruding the film, forming a pattern of shapes defined by thick and thin areas without rupture at the pattern areas, and exposing the film to hot air to create a pattern of open spaces within said film (Abstract; Figures 1-5). In particular, it is clear from the Abstract and Figures 2-5, that the film is embossed and unruptured prior to thermal treatment station 6 where hot air is blown vertically against the embossed and unruptured film to provide openings in the embossed areas. While the examiner acknowledges that

Art Unit: 1791

Yamamoto also suggests the use of a masking material to prevent hot air from opening embossed areas in a central region of the film, one of ordinary skill in the art would have readily appreciated that the technique is equally suitable for perforating an entire film if desired, simply by refraining from using such masking material. Moreover, the claims do not preclude providing the film with a central region which does not have open spaces. An oral translation of Yamamoto was obtained by the examiner on 05 August 2009. Yamamoto does not appear to recite that the hot-air causes the polymer to flow from the thin areas to the thick areas. However, such is considered inherent in the process of Yamamoto. For example, Patchell explains that such heating causes thinned areas to merge with the main solid material, i.e. flow to the thick areas of the main material (column 3, lines 1-11). Moreover, the fact that openings are formed in the process of Yamamoto clearly indicates that the material in the thinned embossed areas has moved to the thicker areas. As to exposing the film to hot air while the film is under tension, it is known to provide such heating under tension in order to prevent the film from shrinking. For example, Hovis teaches a process in which heating, for example by hot air, is used to cause material to flow from thinned areas to thicker areas as openings in the thinned areas are expanded. Hovis teaches that the film should be restrained, i.e. placed under tension, during such heating so that its physical dimensions are held constant (column 2, lines 44-51; column 4, lines 45-52; column 6, lines 24-34). As to reasonable expectation of success, Cree is directed to forming perforations in an elastic polymeric film (paragraph 24). It is clear from Hovis that such materials also shrink and open in thinned portions when subjected to heating (column 5, lines 45-58). It would

Art Unit: 1791

have been obvious to one of ordinary skill in the art at the time of the invention to form the open spaces in the film material using the claimed extruding, forming and exposing limitations because one of ordinary skill in the art would have been motivated to use known suitable methods for forming the perforated film desired by Cree, such as the method suggested by Yamamoto as set forth above. As to the step of applying hot air while the film is under tension, this limitation would have been obvious to one of ordinary skill in the art at the time of the invention because one of ordinary skill in the art would have been motivated to maintain the physical dimensions of the film during such heating in accordance with the teachings of Hovis.

Regarding claim 3, as to forming a pattern of closed shapes, this is shown by Figure 4 of Hovis. Additionally, Hovis suggests the use of geometric shapes such as diamonds which would satisfy the claimed closed shapes (column 5, lines 30-44). Yamamoto also suggests closed shapes (Figure 3).

Regarding the new limitation of the shapes projecting outward from the film in claims 1 and 3, it is important to examine Applicant's specification in interpreting this limitation. From the description in Applicant's specification from page 14, line 32 to page 16, line 28 it is clear that the nip between a patterned roll and an anvil roll creates the claimed pattern of closed shapes. On page 15, Applicant's specification explains that the patterned roll creates a pattern of indented shapes which can be said to produce a pattern of shapes which projects outward. This portion of the specification goes on to very broadly indicate that "raised" and "indented" should be used synonymously to describe the shapes after they have been formed. In view of this

Art Unit: 1791

portion of Applicant's specification, it is clear that the new limitation does not distinguish over the outwardly projecting shapes formed by the embossing patterns suggested by Hovis or Yamamoto since these references similarly suggest performing embossment using closed shapes between a patterned roll and an anvil roll.

Regarding claim 3, the material of Cree is clearly a stretch material.

The limitation of claim 5 has been satisfied for the reasons provided above.

3. Claims 1 and 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morman'992 (US 5226992) in view of Cree, Yamamoto, Patchell and Hovis.

Morman'992 teaches a method of producing a laminate material by bonding a film to a nonwoven material (Abstract; Figure 1; column 5, lines 57-59; column 6, lines 47-54). Although Morman'992 does not teach forming the film into an open mesh or netting, it is generally known in the art to provide the film as an open mesh in order to make the laminate breathable, as evidenced by Cree (Abstract; Paragraph 33; Figure 4). As to the claimed steps of extruding, forming, and exposing, this method of forming an open mesh material from a film is generally known, as evidenced by Hovis (Abstract; Figures 1A-7; column 2, lines 11-12 and lines 44-51; column 4, lines 45-52; column 6, lines 11-34). Hovis teaches that this method of manufacturing an open mesh from a film is advantageous in that a broad range of physical properties can be provided to the finished product (Abstract; column 2, lines 5-10). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the film of Morman'992 by the claimed steps of extruding, forming, and exposing because one of ordinary skill in

Art Unit: 1791

the art would have been motivated to achieve breathability in accordance with the teachings of Cree and one of ordinary skill in the art would have been motivated to provide a breathable film which can be provided with a broad range of physical properties in accordance with the teachings of Hovis.

Yamamoto, Patchell and Hovis are applied as above in the rejection of claims 1, 3 and 5 for suggesting the particular claimed extruding, forming and exposing steps to form a perforated film.

Regarding claim 3, as to forming a pattern of closed shapes, this is shown by Figure 4 of Hovis. Additionally, Hovis suggests the use of geometric shapes such as diamonds which would satisfy the claimed closed shapes (column 5, lines 30-44). Yamamoto also suggests closed shapes (Figure 3). As to the sheet material being extensible in at least two directions, the elastic sheet of Morman'992 is clearly extensible in at least two directions and would therefore be expected to provide the laminate with at least some degree of bidirectional stretch.

Claims 3 has been satisfied for the reasons set forth above.

The limitations of claims 4-6 are clearly taught by Morman'992 (column 4, lines 1-4; column 5, lines 57-59).

4. Claims 1, 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cree in view of Patchell and Hovis.

Cree is applied as above in the rejection of claims 1, 3 and 5.

The current claim language does not preclude an additional step between the claimed steps "b" and "c". The claims are rejected here in the alternative to address this interpretation. Patchell suggests perforating a film material by providing a film material, embossing to form a pattern of shapes defined by thick and thin areas without rupture at the pattern areas, and exposing the film to hot air to cause polymer to flow from thin areas to thick areas thereby creating a pattern of open spaces within the film (column 2, lines 35-60; column 3, lines 1-12; column 4, lines 10-21 and lines 52-57; column 5, lines 39-42; Figures 1-4 and 14). While the examiner acknowledges that Patchell performs a step of stretching which partially opens up the thinned areas prior to the exposing with hot air step, the claims do not preclude such a stretching step nor do the claims require that the exposing step is performed on the film while it is still without rupture in the pattern areas. Hovis is applied as above in the rejection of claims 1, 3 and 5 for suggesting heating under tension and for providing a reasonable expectation of success with respect to the elastic materials suggested by Cree. It would have been obvious to one of ordinary skill in the art at the time of the invention to form the open spaces in the film material using the claimed extruding, forming and exposing limitations because one of ordinary skill in the art would have been motivated to use known suitable methods for forming the perforated film desired by Cree, such as the method suggested by Patchell as set forth above.

5. Claims 1 and 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morman'992 in view of Cree, Patchell and Hovis.

Morman'992 and Cree are applied as above in the rejection of claims 1 and 3-6.

Patchell and Hovis are applied as immediately above in the rejection of claims 1, 3 and 5 for suggesting the particular claimed extruding, forming and exposing steps to form a perforated film.

Response to Arguments

6. Applicant's arguments with respect to claims 1 and 3-6 have been considered but are moot in view of the new ground(s) of rejection. In particular, Applicant's arguments are centered around the newly claimed limitation. This limitation has been addressed in the first prior art rejection above.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). The new grounds of rejection were necessitate by the language added to the independent claims in the most recent amendment.

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

Art Unit: 1791

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL A. TOLIN whose telephone number is (571)272-8633. The examiner can normally be reached on M-F 9am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael A Tolin/
Primary Examiner, Art Unit 1791